

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of regulating adenovirus packaging comprising the steps of:

(a) obtaining a helper adenovirus vector containing a first adenovirus packaging sequence comprising a repressor binding site;

(b) obtaining a DNA delivery adenovirus vector comprising 5' and 3' inverted terminal repeats; a second adenovirus packaging sequence; a heterologous gene; and a promoter operatively linked to the heterologous gene;

(c) propagating the helper adenovirus vector; ~~and the DNA delivery adenovirus vector in a cell line; and~~

(d) propagating the DNA delivery adenovirus vector; and

(e) repressing packaging of the helper adenovirus vector by a repressor which binds to the repressor binding site contained in the helper adenovirus vector.

2. (previously presented) The method according to claim 1 wherein the repressor is COUP-TF.

3. (previously presented) The method according to claim 1 wherein the repressor is lac repressor.

4. (currently amended) The method according to claim 1, wherein ~~the propagating step for~~ the helper adenovirus occurs in a first cell-line ~~thereby forming virus particles containing the helper adenovirus vector, and further comprising the additional steps of:~~ transferring the virus particles to a second cell-line, and ~~the repressing packaging of the helper adenovirus vector step occurs in the second cell-line, wherein the repressing step further comprises a step selected from the group of steps consisting of:~~

(a) ~~endogenously expressing the repressor; and~~

(b) ~~transfected a vector expressing the repressor.~~

5. (currently amended) The method according to claim 1 wherein the repressing step occurs in the cell-line of step ([c][d]) and wherein the repressing step further comprises a step selected from the group of steps consisting of:

- (a) endogenously expressing the repressor; and
- (b) transfecting a vector expressing the repressor.

6. (previously presented) A helper adenovirus vector comprising an adenovirus packaging sequence containing a plurality of COUP-TF binding sites comprising an A repeat VI element.

7. (Currently Amended) A helper adenovirus vector comprising an adenovirus packaging sequence having at least two copies of 5'-TTTGN₈CG-3'(SEQ ID NO:1) and a plurality of COUP-TF binding sites[,,] comprising an A repeat VI element.

8. (cancelled)

9. (previously presented) A method of administering a replicant defective adenovirus to a mammal comprising the steps of:

- (a) packaging a DNA delivery adenovirus vector according to the method of claim 1;
- (b) isolating the packaged DNA delivery adenovirus vector;
- (c) preparing the packaged DNA delivery adenovirus vector in a pharmaceutically acceptable carrier; and
- (d) administering the prepared and packaged DNA delivery adenovirus vector to said mammal.

10. (currently amended) A helper adenovirus vector comprising a packaging signal sequence consisting of at least two copies of 5'-TTTGN₈CG-3'(SEQ ID NO:1) and an A repeat VI element, wherein a repressor binding site flanks the packaging signal sequence.

11-12. (cancelled)

13. (previously presented) The helper adenovirus vector according to claim 10 wherein a repressor binding site alternates with the packaging signal sequence.

14. (previously presented) The helper adenovirus vector according to claim 10 having 3-12 copies of the packaging signal sequence.

15. (previously presented) The helper adenovirus vector according to claim 14 wherein a repressor binding site is located between packaging signal sequences.

16. (currently amended) The helper adenovirus vector according to claim [[11 or]]15 wherein the repressor binding site is a *lac* repressor binding site.

17. (currently amended) The helper adenovirus vector according to claim [[11 or]]15 wherein the repressor binding site is a E2F binding site.

18. (cancelled)

19. (Currently Amended) [[The]]A method of administering a replicant defective adenovirus to a mammal ~~according to claim 9~~ comprising the steps of:

(a) packaging a DNA delivery adenovirus vector comprising the steps of:

(i) obtaining a helper adenovirus vector containing a first adenovirus packaging sequence comprising a repressor binding site;

(ii) obtaining a DNA delivery adenovirus vector comprising 5' and 3' inverted terminal repeats; a second adenovirus packaging sequence; a heterologous gene; and a promoter operatively linked to the heterologous gene;

(iii) propagating the helper adenovirus vector and the DNA delivery adenovirus vector in a cell-line; and

(iv) repressing packaging of the helper adenovirus vector by a repressor which binds to the repressor binding site contained in the helper adenovirus vector according to the method of claim 1;

(b) isolating the packaged DNA delivery adenovirus vector;

(c) preparing the packaged DNA delivery adenovirus vector in a pharmaceutically acceptable carrier; and

(d) administering the prepared and packaged DNA delivery adenovirus vector to said mammal,

wherein step (a) is conducted with a helper adenovirus according to any one of claims 6, 7[[or]] and 10.

20-37. (cancelled)

38. (new) The method according to claim 4, wherein the repressing step further comprises a step selected from the group of steps consisting of:

(a) endogenously expressing the repressor; and

(b) transfecting the second cell-line with a vector expressing the repressor.